

6KE8

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

FRAME-GRID PENTODE

For Combined Oscillator-Mixer Applications
in TV Receivers Having an IF of 40 Mc

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC) 6.3 ± 0.6 volts
Current at heater volts = 6.3 0.400 amp

Peak heater-cathode voltage (Each unit):

Heater negative with
respect to cathode 200 max. volts

Heater positive with
respect to cathode 200^a max. volts

Direct Interelectrode Capacitances:^b

Triode Unit:

Grid to plate 1.3 pf

Grid to cathode, pentode cathode
& pentode grid No.3 & internal
shield, and heater 2.4 pf

Plate to cathode, pentode cathode
& pentode grid No.3 & internal
shield, and heater 2.0 pf

Pentode Unit:

Grid No.1 to plate 0.015 max. pf

Grid No.1 to cathode & grid No.3
& internal shield, grid No.2,
and heater 5.0 pf

Plate to cathode & grid No.3,
& internal shield, grid No.2,
and heater 3.4 pf

Heater to triode cathode and
pentode cathode 5.5^c pf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	125	125	volts
Grid-No.2 Supply Voltage	—	125	volts
Cathode Resistor	68	33	ohms
Amplification Factor	40	—	
Plate Resistance (Approx.)	5000	125000	ohms
Transconductance	8000	12000	μ mhos
Plate Current	13	10	ma
Grid-No.2 Current	—	2.8	ma



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DATA 1
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Grid-No.1 Voltage (Approx.)

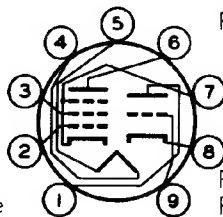
for plate $\mu a =$

100 -5 - volts
50. - -3 volts

Mechanical:

Operating Position. Any
Type of Cathodes. Coated Unipotential
Maximum Overall Length. 2-3/16"
Maximum Seated Length. 1-15/16"
Length, Base Seat to Bulb Top (Excluding tip). . . 1-9/16" \pm 3/32"
Diameter. 0.750" to 0.875"
Dimensional Outline See *General Section*
Bulb. T6-1/2
Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. 9DC

Pin 1-Triode Plate
Pin 2-Pentode
Grid No.1
Pin 3-Pentode
Grid No.2
Pin 4-Heater
Pin 5-Heater
Pin 6-Pentode Plate



Pin 7-Pentode
Cathode,
Pentode
Grid No.3,
Internal
Shield
Pin 8-Triode Cathode
Pin 9-Triode Grid

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE	280 max.	280 max.	volts
GRID-No.2 SUPPLY VOLTAGE.	-	280 max.	volts
GRID-No.2 VOLTAGE	-	See <i>Grid-No.2 Input</i>	

Rating Chart at front of Receiving Tube Section

GRID-No.1 VOLTAGE:

Positive-bias value	0 max.	0 max.	volts
CATHODE CURRENT	20 max.	20 max.	ma

GRID-No.2 INPUT:

For grid-No.2 voltages

up to 140 volts	-	0.5 max.	watt
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For grid-No.2 voltages

between 140 and 280 volts	-	See <i>Grid-No.2 Input</i>	
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Rating Chart at front of Receiving Tube Section

PLATE DISSIPATION	2 max.	2 max.	watts
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Maximum Circuit Values:

	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation.	0.5 max.	0.25 max.	megohm
For cathode-bias operation.	1 max.	0.5 max.	megohm

^a The dc component must not exceed 100 volts.

^b With external shield JEDEC No.315 connected to cathode of unit under test except as noted.

^c With external shield JEDEC No.315 connected to ground.

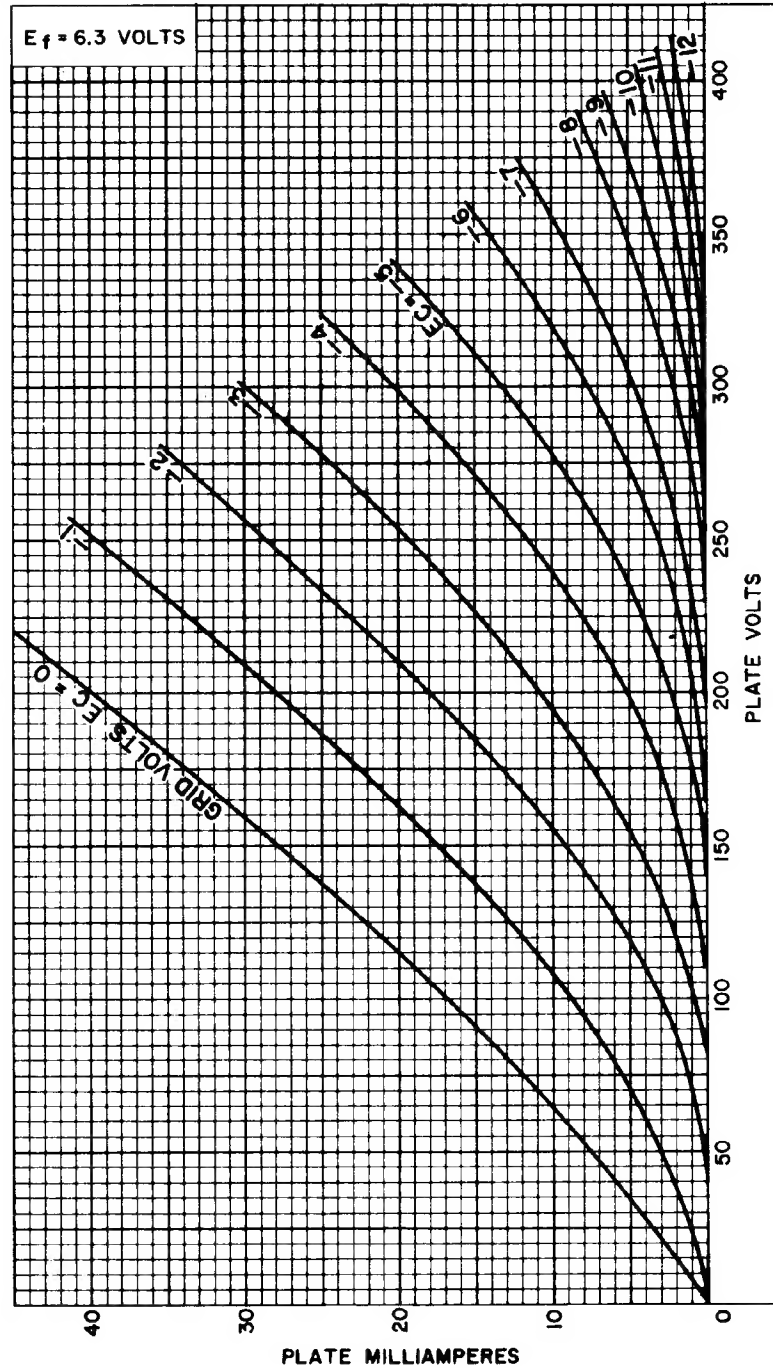
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AVERAGE PLATE CHARACTERISTICS Triode Unit



92CM-11897

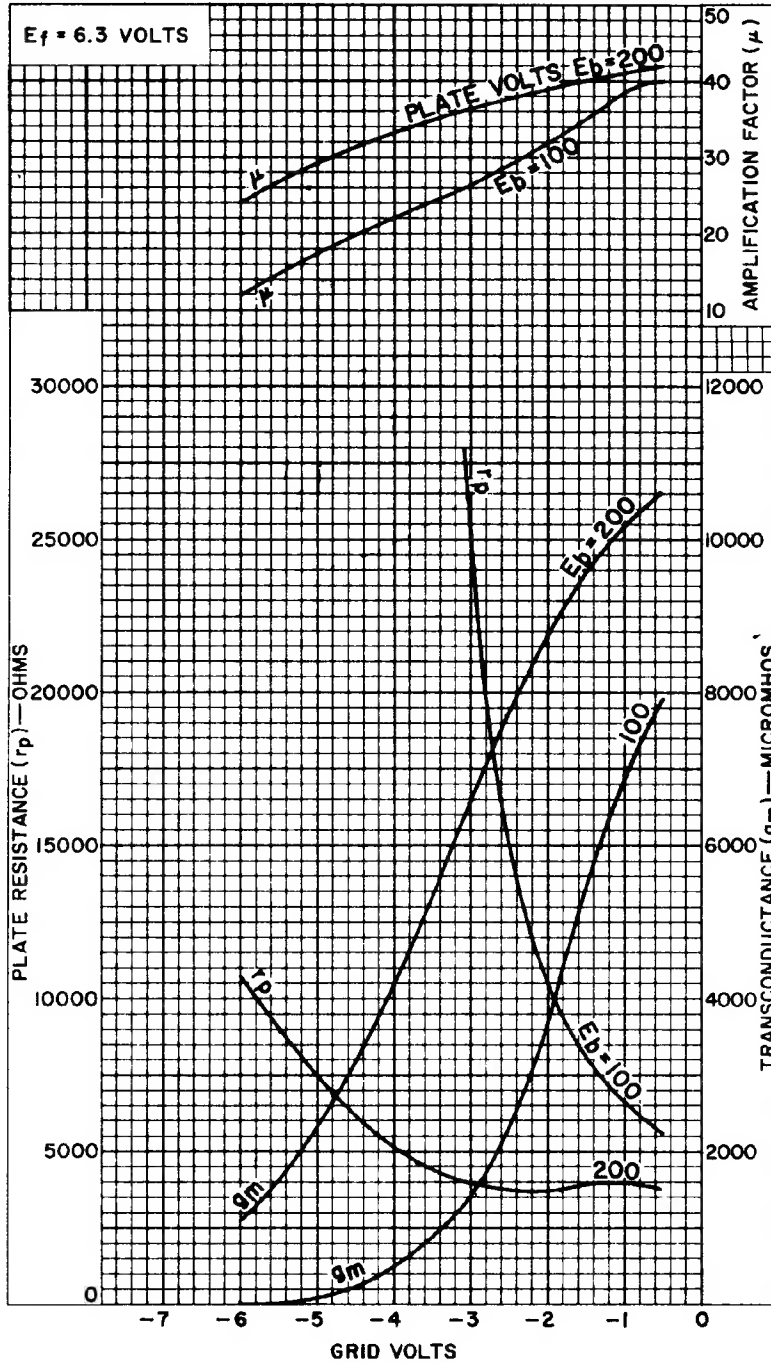


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AVERAGE CHARACTERISTICS Triode Unit



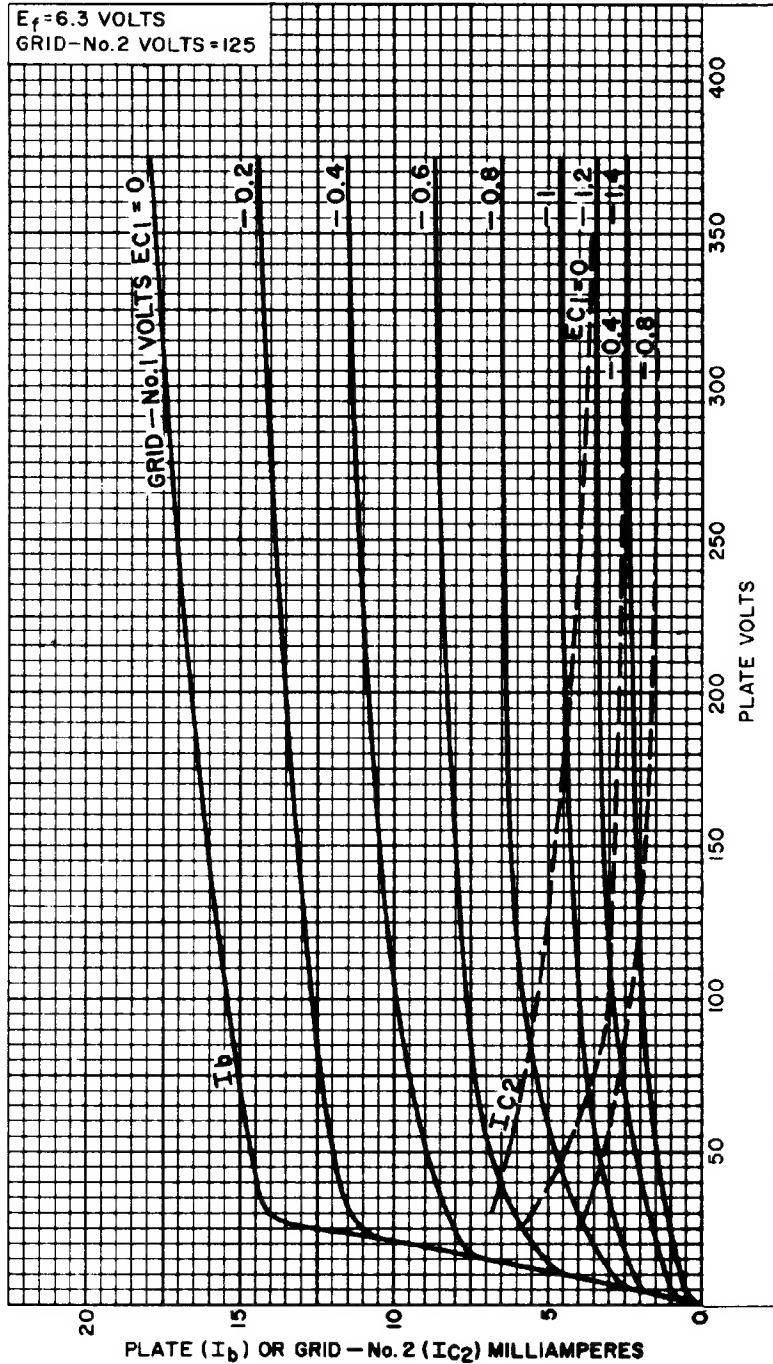
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AVERAGE CHARACTERISTICS Pentode Unit



92CM-11903

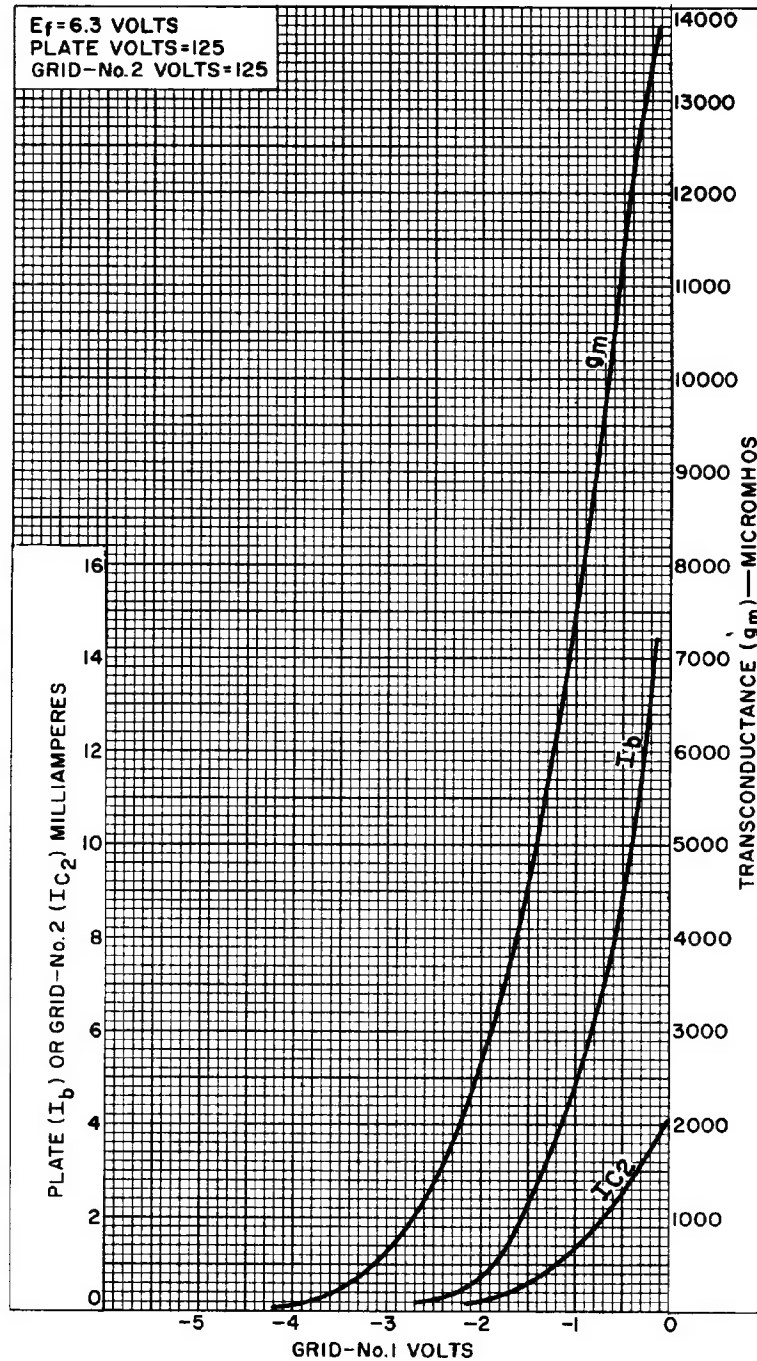


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DATA 3
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AVERAGE CHARACTERISTICS Pentode Unit



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